Review of: "Scintigraphic and histopathologic evaluation of the protective effect of L-carnitine on the development of radiation-induced kidney damage in infant rats"

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Potential competing interests: No potential competing interests to declare.

REVIEW OF “Scintigraphy and histopathologic evaluation of the protective effect of L-carnitine on the development of radiation induced kidney damage in infant rats”

WRITTEN IN ORIGINAL ARTICLE			MY OPINION
SECTION	ABSTRACT: INTRODUCTION		Radiation induced nephropathy (RIN) is a renal function impairment develops after 6-12 moths of exposure (acute) or years after (chronic).
	Radiation-induced nephropathy (RIN) is an impairment of renal function caused by ionizing radiation developing after 6-12 months as acute, or years after chronically.		
	ABSTRACT: MATERIAL METHOD		Two week old male wistar rats (n=40) were taken and classified as control (C), L-carnitine alone (LC), Irradiation alone (RT), and 30min before irradiation (L-Carnitine 300mg/kg,ip + RT).
	Two-week-old male forty Wistar albino rats, control (C), L-carnitine alone (LC), irradiation alone (RT), and 30 min before irradiation (L-Carnitine 300 mg/kg, ip + RT) separated into the group.		
	ABSTRACT: RESULTS		NOT STATISTICALLY SIGNIFICANT ???...PLEASE RECTIFY IT.
	The protective effect of L-carnitine on radiation-induced kidney damage was demonstrated scintigraphically and histopathologically, even if it was not statistically significant.		
	INTRODUCTION		This line is not needed here.
	3rd PARAGRAPH, LAST LINE	is the risk of recurrence in the kidney bed	
	MATERIALS AND METHODS		

	ANIMALS 2nd PARAGARAPH FIRST LINE	All procedures were performed in accordance with the Declaration of Helsinki of the World Medical Association	Please put a reference here.
	HISTOPATHOLOGICAL ANALYSIS: LAST FOUR LINES	Proximal tubular degeneration, proximal tubular atrophy, interstitial fibrosis, and glomerular damage were scored as: 0 (no abnormality), 1 (weak lesions affecting <25% of the kidney samples), 2 (moderate lesions affecting 25-50% of the kidney samples), and 3 (marked lesions affecting >50% of the kidney samples).	My Questions here: 1. Is the scoring standardised? if it is, please mention it. Or else, Put a reference of a standardised scoring. 1. Please elaborate what does it means by **weak lesions**. 2. Please elaborate what does it means by **kidney samples.**
	RESULTS		
	HISTOPATHOLOGICAL RESULTS: LINE NO. 8	All histopathological findings worsened with radiotherapy, and a**positive effect of L-carnitine was not detected statistically.**	L-CARNITINE EFFECT NOT STATISTICALLY SIGNIFICANT? … PLEASE ELABORATE
	DISCUSSION		
	FIRST 3 LINE	In our study, 4-week-old rats were studied, as it was expected that the rats would suck breast milk for 3 weeks after birth and start normal feeding in the most effective way, in order to represent childhood tumours.	PLEASSE PUT A REFERENCE HERE.
	4TH LINE	Therefore, we tried to interpret the results we obtained with great care and care.	PLEASE RECTIFY THE LINE.

	5TH PARAGRAPH: 1-10TH LINE	The kidney is a highly metabolic organ and is particularly vulnerable to damage caused by oxidative stress. DNA damage caused by oxidative stress in the acute phase of radiation-induced tissue damage is an important pathomechanism in the progression of chronic kidney disease. Oxidative stress occurs when reactive oxygen species (ROS) outweigh antioxidants [33]. When superoxide dismutase (SOD), glutathione peroxidase (GSH-Px) and catalase (CAT) enzymes fail as antioxidants in the cellular repair mechanism, apoptosis induced by reactive oxygen radicals comes into play as a last resort. Upregulation of Bax and Bcl-2 in the inner layer of mitochondria, activation of caspase proteases, activation of tumor necrosis factor (TNF-α), and transforming growth factor (TGF-β) results in apoptotic death.	I THINK THIS ELABORATIONS ARE NOT NEEDED HERE. IF POSSIBLE, PLEASE REMOVE.
	DISCUSSION: 7TH & 8TH PARAGRAPH	L-carnitine also plays an important role in fatty acid oxidation by introducing active long-chain fatty acids into the mitochondrial matrix. In our study, we hypothesized that L-Carnitine might have protected the contralateral kidney systemically by activating this mechanism, and this will be the subject of our future studies [32]. They showed that the effects of L-Cartin on the PI3K/AKT/PTEN apoptosis signaling pathway are responsible for its renoprotective effects in chronic tacrolimus nephropathy in vivo [23]. Carnitine is an agent that can be administered orally and intravenously and has minimal side effects. Carnitine therapy has been used as a replacement treatment for both hereditary and acquired disorders and for preventing oil oxidation and ketogenesis in preterm newborn infants [25][42][43][44].	THESE ELABORATIONS ARE NOT NEEDED IN DISCUSSION PART….. EITHER MOVE IT TO THE INTRODUCTION PART UNDER LCARNITINE OR ELSE MAKE IT MINIMISE AS MUCH AS POSSIBLE.